AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

1-91. (Cancelled).

92. (Previously presented) A method of treating Huntington's disease in a human subject in need thereof comprising providing trophic support to striatal neurons by administering to the striatum of a subject a therapeutically effective amount of a neurotrophic polypeptide comprising an amino acid sequence having at least 95% identity to the amino acid sequence of SEQ ID NO: 4 and having cysteine residues at positions 7, 28, 59, 95, 148, 151, 161, 219, 243, and 265 relative to the amino acid sequence of SEQ ID NO: 4.

93-128. (Cancelled).

129. (Previously presented) The method of claim 92, wherein the polypeptide comprises the amino acid sequence of SEQ ID NO: 4.

130-131. (Cancelled).

132. (Currently amended) A method of treating Huntington's Disease in a human subject in need thereof comprising providing trophic support to striatal neurons by administering to the subject a therapeutically effective amount of a neurotrophic polypeptide comprising an amino acid sequence:

- having at least 90% ~~95%~~ identity to the amino acid sequence of SEQ ID NO: 4;
- having cysteine residues at positions 7, 28, 59, 95, 148, 151, 161, 219, 243, and 265 relative to the amino acid sequence of SEQ ID NO:4; and

- further comprising ~~having~~ all amino acid residues marked in Figure 3a as fully conserved (*).

133. (Previously presented) The method of claim 132, wherein any mutation to an amino acid residue marked in Figure 3a as strongly conserved (:) is made within the following conserved groups: serine, threonine, and alanine; asparagine, glutamic acid, glutamine, and lysine; asparagine, histidine, glutamine, and lysine; asparagine, glutamic acid, aspartic acid, and glutamine; glutamine, histidine, arginine, and lysine; methionine, isoleucine, leucine, and valine; methionine, isoleucine, leucine, and phenylalanine; histidine and tyrosine; and phenylalanine, tyrosine, and tryptophan.

134. (Currently amended) A method of treating Huntington's disease in a human subject in need thereof comprising providing trophic support to striatal neurons by administering to the striatum of a subject a therapeutically effective amount of a neurotrophic polypeptide comprising an amino acid sequence having at least 95% identity to the amino acid sequence of SEQ ID NO: 4 and which further ~~; wherein the polypeptide~~ comprises the amino acid sequence of SEQ ID NO: 60.

135. (Currently amended) A method of providing trophic support to striatal neurons by administering to the striatum of a subject a therapeutically effective amount of a neurotrophic polypeptide comprising an amino acid sequence having at least 90% ~~95%~~ identity to the amino acid sequence of SEQ ID NO: 4 and which further ~~; wherein the polypeptide~~ comprises the amino acid sequence of SEQ ID NO: 60.

136. (Cancelled).

137. (New) The method of claim 92, wherein any mutation to an amino acid residue marked in Figure 3a as fully conserved (*) is a conservative substitution.

138. (New) The method of claim 92, wherein the polypeptide has 98% sequence identity to the amino acid sequence of SEQ ID NO: 4.

139. (New) A method of providing trophic support to striatal neurons by administering to the striatum of a subject a therapeutically effective amount of a neurotrophic polypeptide comprising an amino acid sequence

- having at least 95% identity to the amino acid sequence of SEQ ID NO: 4;
- having cysteine residues at positions 7, 28, 59, 95, 148, 151, 161, 219, 243, and 265 relative to the amino acid sequence of SEQ ID NO: 4; and
- further comprising AA_{30}-AA_{288} of SEQ ID NO: 3 or a variant thereof, wherein less than 5 amino acids have been changed relative to said fragment of SEQ ID NO: 3.

140. (New) The method of claim 139, wherein 1 or 2 amino acids have been changed relative to said fragment of SEQ ID NO: 3.

141. (New) The method of claim 135, wherein the polypeptide has 95% sequence identity to the amino acid sequence of SEQ ID NO: 4.

142. (New) A method of providing trophic support to striatal neurons by administering to the subject a therapeutically effective amount of a neurotrophic polypeptide comprising an amino acid sequence:

- having at least 95% identity to the amino acid sequence of SEQ ID NO: 4;
- having cysteine residues at positions 7, 28, 59, 95, 148, 151, 161, 219, 243, and 265 relative to the amino acid sequence of SEQ ID NO: 4; and

- wherein any mutation to an amino acid residue marked in Figure 3a as fully conserved (*) is a conservative substitution.

143. (New) The method of claim 142, wherein a conservative substitution is a substitution within the following conserved groups: serine, threonine, and alanine; asparagine, glutamic acid, glutamine, and lysine; asparagine, histidine, glutamine, and lysine; asparagine, glutamic acid, aspartic acid, and glutamine; glutamine, histidine, arginine, and lysine; methionine, isoleucine, leucine, and valine; methionine, isoleucine, leucine, and phenylalanine; histidine and tyrosine; and phenylalanine, tyrosine, and tryptophan.